By Juan E. Gonzalez

A Robust Economy

The outlook is bright, although 1998 won't bring the explosive growth of the early '90s

SUMMARY

The 1998 regional economic outlook calls for expansion of auto-related, construction-related, and durables manufacturing. The apparel industry is expected to continue to decline, but it will do so at a slowing rate. Construction activity, although weakened, will be buoyed by high levels of in-migration. Tourism and the service sector are expected to maintain healthy growth rates. Government-sector expansion will remain restricted.

The recent performance of the [U.S.] economy, characterized by strong growth and low inflation, has been exceptional—better than most anticipated. . . . The economy is now in the seventh consecutive year of expansion, making it the third longest post-World War II cyclical upswing to date.

—Alan Greenspan,
Federal Reserve chairman

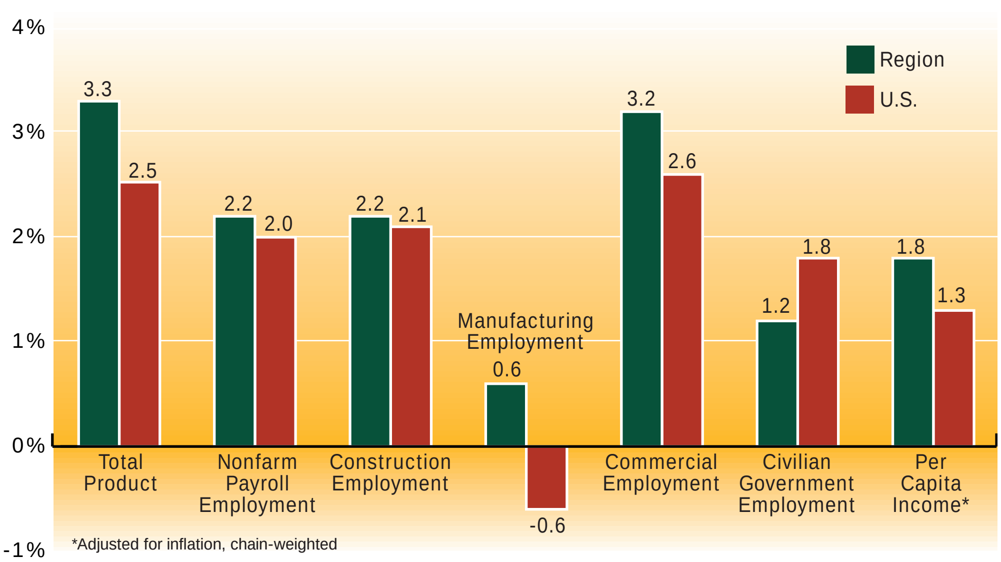
The Valley's share of the growth that Alan Greenspan described to Congress on July 22 has been a generous one. Between the end of the 1991 recession and today, total gross regional product (GRP) rose by an annual average rate of 4.1 percent, compared with the nation's 2.8 percent annual growth in gross domestic product (GDP). Indications are that the expansion will continue.

The Valley's 1998 GRP is expected to grow at a rate of 3.3 percent; the current consensus is that the nation's GDP will expand at 2.5 percent (*see chart, below left*). The regional figure represents only a slight slowdown from this year's strong performance—the Valley is expected to wind up at about 3.5 percent for 1997, roughly the same as the national rate—as manufacturing improves into 1998.

Nondurable-goods manufacturing remains an area of weakness, but durable goods (those that last three or more years, like cars and appliances) are growing. That momentum is expected to carry into 1998, making up for the weakness in nondurables. Construction should remain healthy, but it will slow from the very rapid growth of the past few years. The current good growth in services will continue, helped by high rates of migration and rising tourism.

Although this forecast calls for a strong regional performance next year, the predicted growth pales in comparison with that experienced from the end of the 1991 recession through 1994: the latest revised data for national and regional total gross product show that the area's economy grew at about twice the U.S. rate during the period (*see chart, opposite*). In 1995 that speedy growth decelerated

VALLEY VERSUS U.S.: PREDICTED CHANGE IN GRP, INCOME, AND SECTOR EMPLOYMENT, 1998



Gross regional product in the Tennessee Valley should grow by about 3.3 percent in 1998.

to about the national rate. This pattern is expected to continue through 1997.

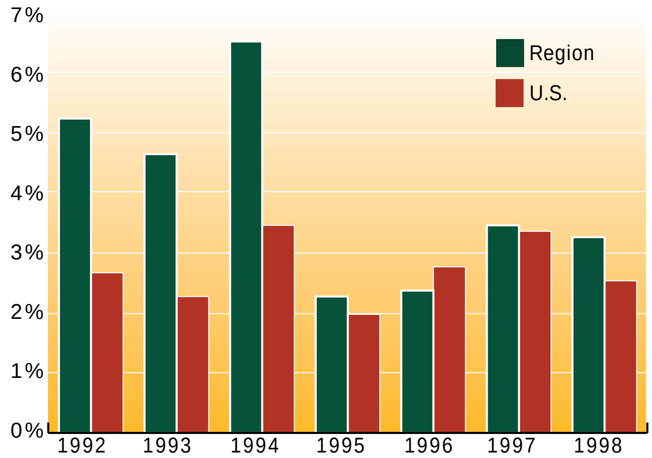
There are many similarities between the current state of the region's economy and the conditions that prevailed in 1992, but important differences account for the more muted growth projected for 1998.

First, there are dissimilarities in the business cycle. In 1992 the U.S. economy was emerging from the 1991 recession, which had been caused by rising oil prices following the Iraqi invasion of Kuwait and rising interest rates resulting from the Federal Reserve's efforts to ease inflationary pressures. As income rose and the Fed supported growth through lower interest rates, there were strong increases in the demand for manufactured goods. Between 1992 and 1994, people bought the houses, cars, appliances, and other big-ticket items that had been put off during the recession. Since the Valley's economy is heavily geared to manufacturing, the U.S. economic expansion made the area's economy grow even faster.

In 1997, by comparison, the nation is emerging from a Fed-engineered economic slowdown, not a recession. Interest-rate changes always have a disproportionate effect on construction and manufacturing, both important elements of the Valley economy. As the region felt the effects of Fed rate increases in 1995, its growth rate decelerated more than the nation's. Now that the U.S. economy has strengthened once more, the region has followed suit, and manufacturing growth leads the way as it did in 1992.

However, the current upturn has proceeded at a much more moderate pace, in part because the nation suffered only a slowdown. Consumption was not as subdued as in a recession, and thus the subsequent pickup in demand for housing, cars, and other consumer durables has been less pronounced. Evidence of the economy's rebound is nevertheless real, as shown by improvement in such construction-related manufacturing as carpet-making and in durable-goods output over 1996 levels.

REGIONAL AND NATIONAL GROSS PRODUCT GROWTH



The Valley economy's growth at the end of the decade will be solid, but it won't sizzle quite as much as it did in the early '90s.

Another difference between '92 and '97 is that the region's economy does not look as strong in comparison with the nation's this time around, because other regions of the country are in much better shape than they were in the early '90s. At that time the Northeast was still very weak and California was essentially in a recession; now these areas are growing. Indeed, the consensus prediction of national economic conditions for 1997, given in last year's *Economic Edge* forecast, was revised sharply upward as other regions experienced far stronger growth than expected. Our own 1997 Valley forecast was also revised upward as a result of this stronger national growth, but was considerably closer to the current picture for the year.

The business-cycle-related pattern of manufacturing growth described above explains only part of the difference between economic conditions in the early '90s and today. An equally important factor is the

PROFILE OF THE TVA POWER SERVICE AREA

TVA's power service area consists of 170 counties in Tennessee and parts of six surrounding states.

In 1996 the Valley's economy totaled about $196 billion in gross product, $159 billion in personal income, 3.7 million in nonfarm payroll employment, and 7.9 million in population—roughly 3 percent of the U.S. totals.

Some 44 percent of the region's population lives in nonmetropolitan areas, compared with 22 percent of the nation's. And in 1996 manufacturing employment made up 24 percent of the Valley's nonfarm payroll employment; the national figure was 15 percent.

WHY MANUFACTURERS LIKE THE VALLEY

Location. The region is convenient to most major U.S. markets.

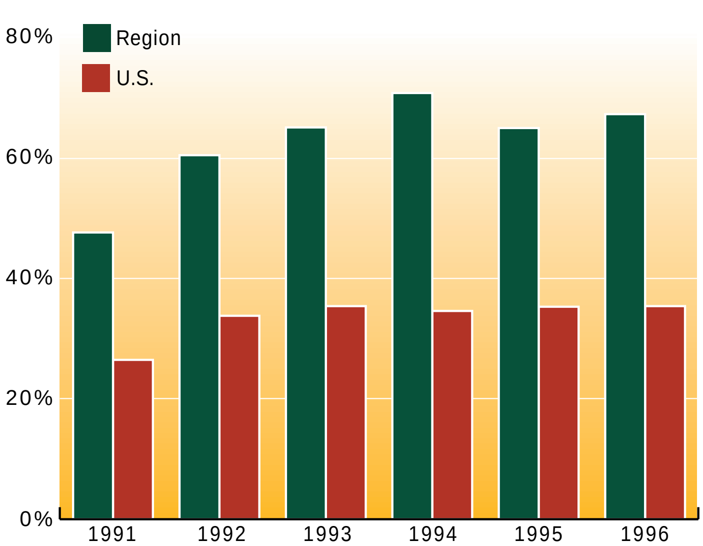
Transportation. Goods can be shipped by interstate, rail, air, or barge.

Low-wage workforce. Average regional earnings in manufacturing are about 21 percent below the national average.

Low-cost, abundant resources. Water, land, and electricity are plentiful, and TVA's low rates have helped keep industrial production costs down.

growth engine of the region's thriving auto-related industry. Since 1980 motor-vehicle-related production has aggregated along the I-65 and I-75 corridors, and the Valley is at the center of the industry's southern concentration. The Japanese in particular have developed a significant presence here, with both assembly and supplier production facilities. Each segment is healthy. During the early '90s, however, other circumstances boosted their rapid growth to boomlike proportions. In 1993 the Nissan plant near Nashville expanded with the addition of the new Altima model. Also, as the dollar decreased in value against the yen, it became increasingly cost-effective for U.S.-manufactured Japanese-nameplate vehicles to use parts made in America. But the strongest auto-related economic effect on the Valley still stems from the opening of the Saturn plant near Nashville. In the four years following its start-up in 1990, the Saturn plant alone brought nearly 8,000 jobs to the region; many of its suppliers also relocated to or expanded in the Valley. All this has added greatly to the region's economic growth.

MIGRATION AS A PERCENTAGE OF POPULATION INCREASE



Steady in-migration continues to swell the Valley's workforce.

Of course, none of that growth would be possible if it weren't for the availability of a suitable workforce, and here again the area has been fortunate. As our economy persisted in outperforming other regions of the country during the first part of the decade, migration into the Valley made up an increasing proportion of overall population growth (*see chart, below*). By 1994 over 70 percent of the region's growth in population (more than twice the U.S. average) came from the migration of workers flooding into the region to take the new jobs generated by the growing manufacturing sector.

A recent Conference Board study shows, moreover, that about a third of the net migration into the Valley from other parts of the U.S. between 1990 and 1994 consisted of people from the East North Central area (Illinois, Indiana, Michigan, Ohio, and Wisconsin)—a region known for the manufacturing expertise of its labor force, particularly in auto-related occupations.

This combination of fast manufacturing growth and migration had a spillover effect on other parts of the economy. It generated additional service jobs as businesses made purchases and workers spent their paychecks locally. Warehousing and distribution centers expanded. Health care, telemarketing-related services, and tourism also saw notable increases. The fast-growing population and intensified business activity made construction strong during this period. Even as manufacturing decelerated in 1995, services and construction carried the region's economy through 1996.

This year regional durables manufacturing has again been expanding as companies seek the advantages inherent in the Valley's location (*see sidebar, above left*). The production outlook index from the Atlanta Federal Reserve's regional manufacturing survey is at levels not seen since before 1995. The state of Tennessee reports that the number of announced new jobs and investments occurring within its borders in the first half of this year reached the highest level since early 1992. This bodes very well for the regional economy in 1998, as does the outlook for the national economy.

The current national economic momentum, sustained by strong consumer confidence and business investment, is expected to last into 1998. Recent federal tax-cut legislation should further stimulate growth. Energy prices are likely to remain low, and the shrinking federal budget deficit will continue to put downward pressure on interest rates, even as it restricts government growth. Worldwide capacity remains ample as investment continues and slow growth in Europe and Japan holds down demand.

On the other hand, U.S. labor markets remain tight, and inflationary pressures (including labor demands, as evidenced by the UPS strike earlier this year) have been growing. This should eventually lead the Fed to tighten monetary policy, thus producing higher interest rates in the financial markets. Curtailed economic growth will result, but as in 1994, it will occur after a delay and not before late next year at the earliest.

In view of this positive national outlook, regional manufacturing should continue its expansion into 1998. But the explosive growth that characterized the early 1990s will not recur, because the additional factors that sparked it are no longer in place.

The auto-related sector continues to expand in the Valley, especially as car sales pick up and assembly investments outside the region, such as the new Mercedes-Benz plant in Alabama, provide a boost to the region's auto-parts industry. Nevertheless, there are no Saturn-style investments in the offing, and neither Nissan nor Saturn is expected to make any significant expansions. Saturn is suffering from heavy competition. The new Nissan plant in Decherd, Tennessee, began supplying engines for its expanded Altima production in May, and it is expected to begin production of a sport utility vehicle in 1999. But Nissan is also shifting Sentra production to Mexico.

Meanwhile, the lower value of the yen and the weakness of the Japanese economy will continue to slow both regional exports and the further replacement of imported parts with Valley-made parts for Japanese-nameplate vehicles. Thus, while the auto-related industry will thrive, it won't achieve the unusually vigorous growth of the early '90s.

Another circumstance that will preclude growth similar to that of 1992 is the decline of the regional apparel industry since 1994. Many plants have closed since then, as international competition—heated by the collapse of the Mexican peso just as NAFTA lowered trade barriers with Mexico—became intense. The region is still losing apparel jobs, but the rate has declined to single digits from last year's double digits. These losses will continue to be a drag on regional growth in 1998.

Migration into the Valley, although it has slowed since 1994, will remain high, enlarging the region's labor force and increasing demand for goods and services such as housing. While regional construction activity remained quite robust through 1996, this was mostly due to a catch-up effect from the strong growth experienced earlier. Once inventories were built up, activity slowed, and the slower pace is expected to last into 1998.

Overall, these factors will lead to strong regional growth in 1998, but the rate will be considerably more moderate than the explosive performance of the early 1990s. □

DAVID LUTTRELL

Juan E. Gonzalez, TVA's Economic Forecasting Manager, has been in charge of the corporation's economic analysis and forecasting since 1985. His assessments provide the economic underpinnings of TVA's business and strategic planning and economic development activities.

Gonzalez is the author of several papers on regional economics and has been quoted in many publications, including *The Wall Street Journal*. He is a graduate of the University of Miami and the University of Florida.

Growth Rates for the Valley's Economic Subregions, 1998

Although the Tennessee Valley's economic subregions are interlinked and share many of the same comparative advantages for manufacturing and other economic endeavors, they have distinct differences that account for the variations in their respective economic growth trends. Note that western Kentucky is included with West Tennessee and south central Kentucky with Nashville.

TVA POWER-SERVICE AREA	
Employment	
Nonfarm	2.2%
Construction	2.2%
Manufacturing	0.6%
Durables	1.1%
Nondurables	0.1%
Service sector	3.2%
Civilian government	1.2%
Personal income*	3.0%
Population	1.18%
Personal income per capita*	1.8%

ALABAMA	
Employment	
Nonfarm	2.0%
Construction	2.4%
Manufacturing	0.9%
Durables	1.0%
Nondurables	0.7%
Service sector	3.0%
Civilian government	1.1%
Personal income*	2.8%
Population	0.96%
Personal income per capita*	1.8%

CHATTANOOGA	
Employment	
Nonfarm	2.2%
Construction	2.0%
Manufacturing	1.1%
Durables	0.4%
Nondurables	1.4%
Service sector	3.2%
Civilian government	1.0%
Personal Income*	2.9%
Population	1.20%
Personal income per capita*	1.7%

KNOXVILLE	
Employment	
Nonfarm	2.2%
Construction	2.0%
Manufacturing	0.1%
Durables	1.5%
Nondurables	-1.5%
Service sector	3.3%
Civilian government	0.9%
Personal income*	2.9%
Population	1.22%
Personal income per capita*	1.7%

MISSISSIPPI	
Employment	
Nonfarm	2.0%
Construction	3.4%
Manufacturing	0.7%
Durables	1.7%
Nondurables	-0.9%
Service sector	3.3%
Civilian government	1.1%
Personal income*	2.8%
Population	0.87%
Personal income per capita*	1.9%

NASHVILLE	
Employment	
Nonfarm	2.4%
Construction	1.9%
Manufacturing	0.5%
Durables	1.2%
Nondurables	-0.7%
Service sector	3.4%
Civilian government	1.6%
Personal income*	3.3%
Population	1.61%
Personal income per capita*	1.6%

TRI-CITIES	
Employment	
Nonfarm	2.1%
Construction	2.5%
Manufacturing	0.8%
Durables	0.5%
Nondurables	1.1%
Service sector	3.1%
Civilian government	1.1%
Personal income*	2.8%
Population	0.92%
Personal income per capita*	1.9%

WESTERN	
Employment	
Nonfarm	2.2%
Construction	2.0%
Manufacturing	0.4%
Durables	0.9%
Nondurables	0.0%
Service sector	3.0%
Civilian government	1.2%
Personal income*	2.9%
Population	0.89%
Personal income per capita*	2.0%

*Personal income, both total and per capita, is in constant dollars adjusted to account for inflation (1992 chain-weighted dollars).

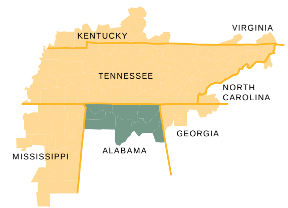
The Alabama Subregion

Continued improvement should mark the Alabama subregion's economy in 1998, although the area is still expected to lag behind the rest of the Valley. It grew very rapidly during the '80s, when durables manufacturing as well as service-sector and nonfarm payroll employment all increased much faster than the regional average. This was mostly due to a dramatic expansion of Huntsville's aerospace and defense industry. But by 1990 the city was feeling the effects of defense cutbacks, and jobs declined.

Economically, the remainder of the subregion is more typical of the rest of the Valley and grew along with it in the early 1990s. Although Huntsville's growth had been concentrated in durables manufacturing, the rest of the subregion expanded primarily in nondurables, especially textiles and poultry processing. The chart below shows the sharp decline in durables between 1990 and 1994. This trend only partly offset the reverses in Huntsville, so the economy of the subregion as a whole grew at a slower pace than that of the Valley during the period.

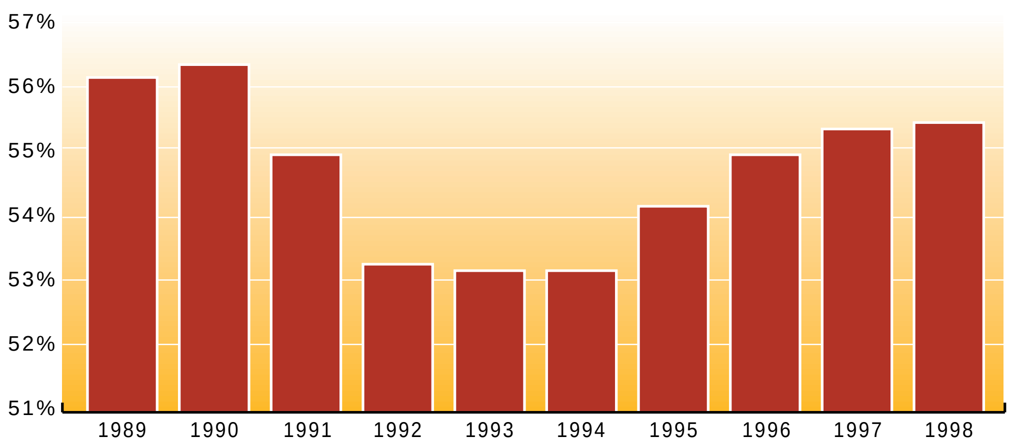
Reflecting the '95 slowdown, the subregion rapidly lost apparel jobs. Although it retained most of its previous gains in textiles, and although food processing continued to expand very slowly, nondurables posted overall job losses. At the same time, Huntsville was able to hold on to many of its highly skilled workers, who transferred their talents to nondefense commercial positions. For example, SCI Systems and Adtran, two Huntsville businesses on the Edge 100 list of the largest companies headquartered in the Valley (*see the Summer '97* Economic Edge), greatly increased their payrolls over the period. Other durables companies, such as the new Trico Steel mini-mill in Decatur, have also been moving in. Trico employs about 300 people and brings additional business to the subregion. The chart shows the renewed strength in durables since 1994.

These trends should continue in 1998, when nondurables will improve as apparel becomes less of a drag on the economy. Although the explosive defense-driven growth of the 1980s won't return, metals and machinery are expected to go on expanding in both high-tech and more standard industries such as auto-related manufacturing, which will benefit from the new Mercedes-Benz plant in Vance, Alabama. Additionally, civilian government employment is being augmented by the transfer of 1,600 Air Missile Command positions to Huntsville as the consolidation in national defense continues.



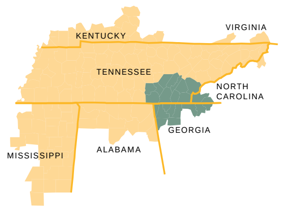
North Alabama's economy got a big boost on September 30 when state officials announced that the Boeing Company would build a Delta IV rocket plant in the Mallard-Fox Creek Industrial Park near Decatur. The $450 million plant will cover two million square feet and employ 2,300 workers. The subregional forecast for 1998, at left, was prepared before this event and doesn't reflect any potential economic effects from plant construction, scheduled to start in November.

DURABLE GOODS AS A PERCENTAGE OF MANUFACTURING



Durables' portion of manufacturing has rebounded well after a decline in the mid-'90s.

The Chattanooga Subregion



Corrugated Replacements, in Blairsville, Georgia, manufactures replacement parts for corrugated-box machinery. The new company received assistance in the form of a $300,000 loan from TVA's Economic Development Loan Fund. It expects to have a workforce of 90 by next year.

The Chattanooga subregion expanded rapidly in the early 1990s, led by strong growth in manufacturing. Although the pace decelerated more sharply than in the rest of the Valley in 1995, the subregion has seen moderate improvement since then and is expected to grow at roughly the regional average in 1998.

Early in the decade, manufacturing posted strong, broad-based gains in both durables and nondurables. Durables' growth took place across the board but was particularly vigorous in the auto-related industry, although this expansion was magnified by the fact that it started from a very small base.

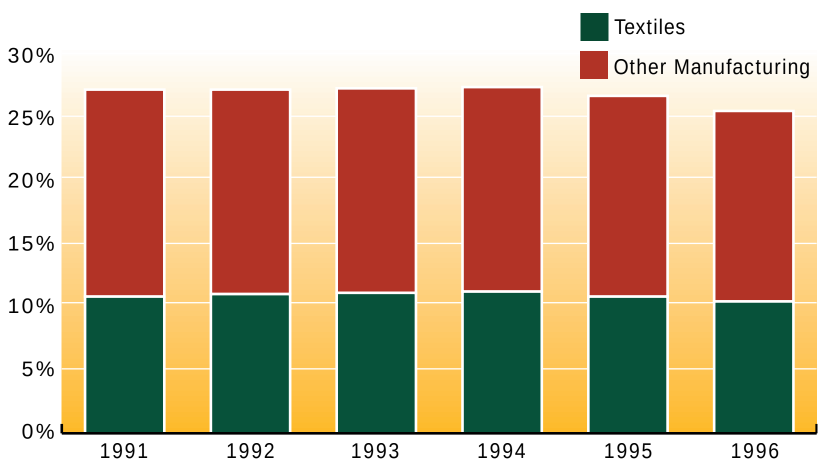
For nondurables, the healthy increase was due to a surge in textiles (about 60 percent of jobs in this sector are in the north Georgia carpet industry, which includes two of the largest Edge 100 firms, Shaw Industries and Mohawk Industries). The expansion was all the more remarkable in that it arose from an already very large base; textiles employment alone is a third again as large as employment in all the durables industries put together. The chart below shows that textiles accounted for about 11 percent of total nonfarm payroll jobs in the subregion and grew in share throughout the early 1990s.

That growth ended with the national slowdown in 1995, and the industry has only recently shown signs of accelerating again. Sustained solid growth in the nation's economy, especially in housing and commercial construction, is expected to lead to continued expansion of the carpet industry. Demand for other textiles, particularly those made for export, should also increase, and textiles overall are expected to see moderate growth next year. As the apparel-industry decline eases and improvement in the paper, printing, and publishing industry continues in the subregion, nondurables manufacturing is expected to register faster-than-regional growth next year.

Growth in durables employment was very slow, but it did not decline. In 1998 that slower-than-regional pace is expected to continue as the weakness in metals offsets stronger growth in the auto-related industry. For instance, Denso Manufacturing Tennessee's new plant, which will build automobile oxygen sensors and fuel-injection systems, will be fully operational next year.

Outside manufacturing, Chattanooga's industry is healthy and well diversified. Service-sector growth will moderate, however, because mergers in banking, insurance, and health care have led to some downsizing. Tourism has improved over 1996 levels and is expected to expand further next year. Overall, growth in the subregion's service industry should occur at about the same rate as the regional average in 1998.

MANUFACTURING AS A PERCENTAGE OF TOTAL NONFARM EMPLOYMENT



Textiles, mainly carpets, represent 11 percent of nonfarm payroll employment.

The Knoxville Subregion

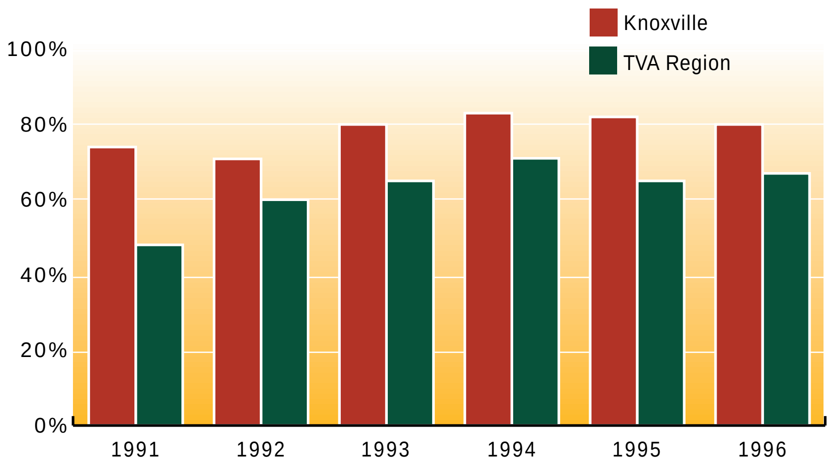
The forecast for the Knoxville subregion's economy calls for growth matching the strong regional performance expected in 1998. As with the rest of the Valley, however, this expansion will be considerably slower than the rapid growth of the early 1990s. Indeed, the subregion's economic fortunes have pretty much matched those of the Valley as a whole throughout the decade, though with some differences.

The sizable migration into the subregion has pushed population growth even higher than in the rest of the Valley (*see chart, right*). Although the rate of growth has slowed, it remains considerably above the national average, a sign of the economy's general good health. This migration has resulted from the subregion's fast economic expansion in the first half of the 1990s as certain industries—business services, tourism, and auto-related manufacturing in particular—created a large number of jobs.

Because the subregion is a prime location for investment in the auto-parts industry, durable-goods manufacturing in general is expected to expand in 1998. Boatbuilding has also revived, and manufactured housing in the subregion, as exemplified by Clayton Homes (one of the Edge 100 firms), has been holding its own in spite of a degree of weakness in the industry overall.

Nondurables, on the other hand, have not fared well. The major drag on Knoxville's economy is the apparel and textile industries, which have lost almost 20 percent of their employment in the past few years. Those declines are expected to continue in 1998, but at a slowing rate. Nondurables manufacturing has also been affected by cuts in government spending, particularly in chemicals (the classification given to the Department of Energy's Oak Ridge facility).

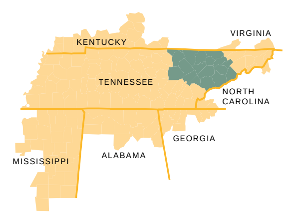
NET MIGRATION AS A PERCENTAGE OF TOTAL POPULATION GROWTH



The Knoxville subregion has experienced substantial migration since 1991.

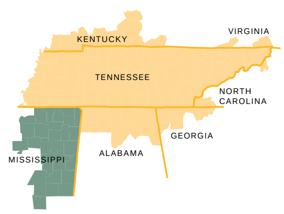
Knoxville's expansion in services has occurred in a variety of businesses, from telemarketing to spin-offs of technology from government agencies. Here again, federal downsizing has had an effect as lower levels of activity by government contractors flattened out the growth in engineering and professional services. Tight government budgets are expected to continue slowing the subregion's growth in 1998, although as more firms take advantage of the available skilled labor, business services will expand. This growth, however, won't reach the very fast rates experienced in the early 1990s.

Tourism should remain a plus for the Knoxville economy. Visits to area attractions have reportedly increased over last year, and the trend is expected to hold in 1998 as investors continue to pour money into the area around Pigeon Forge. This expansion will engender a growth in consumer services, including stores, hotels, and amusements.



Alliance Engines of Maryville, Tennessee, is a state-of-the-art jet-engine repair plant that faced closure last year when its two main investors pulled out. With funds from various sources, including $1 million from TVA's Economic Development Loan Fund, Alliance was saved. It expects jobs to increase from 80 to 400 in the next five years.

The Mississippi Subregion



Master Design Furniture of Europa, Mississippi, produces buffets and china cabinets. In 1996 it expanded operations with the help of a $500,000 loan from TVA's Economic Development Loan Fund. The company employs 314 workers and expects to add 100 more as a result of the expansion.

From the late 1980s through the early 1990s, the Mississippi subregion experienced very large increases in manufacturing employment. In addition, the advent of legalized gambling in the '90s strongly stimulated a growth in services; although the main gambling venues are outside the subregion, their effects are felt in greater through-travel and tourism. Gambling-related revenues also allowed state and local governments to increase expenditures on construction. The subregion was strongly affected by the national economy's 1995 slowdown, however, and growth slowed to rates somewhat below those of the entire Valley. That situation is not expected to change next year.

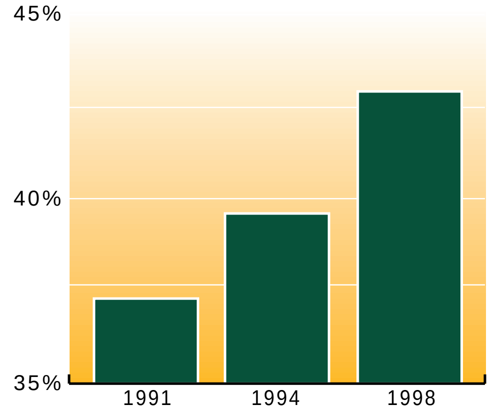
Mississippi's economy reflects trends in two industries, furniture and apparel, which provided over 15 percent of total nonfarm payroll jobs in the subregion in 1991. As the gambling industry matures, services are expected to grow at faster-than-regional rates, although more slowly than in the early 1990s. This sector accounted for only 37 percent of nonfarm payroll jobs in 1991, but its importance to the economy continues to increase (*see chart, above right*).

The apparel industry is expected to depress growth. It had already been losing employment in the early 1990s, partly because gambling-related expansion created new jobs for workers. Then, in 1994, those losses in the subregional industry rose sharply. Although the rate of decline has slowed, apparel's contraction will cause nondurables employment as a whole to drop in 1998.

Furniture-industry employment increased through 1994 and then declined in 1995 as the national slowdown dampened big-ticket purchases. With the resurgence of the national economy, housing and durables sales, but not furniture sales, have risen. One theory is that because furniture retailers have offered terms requiring no down payment and no interest or payment for six months or more, many consumers are just now starting to pay for items purchased up to a year ago. Thus furniture sales and manufacturing are expected to increase only moderately in 1998—although they will remain a crucial part of the economy, represented by companies like River Oaks Furniture, an Edge 100 firm headquartered in the subregion.

The manufacture of other durables should expand more strongly in 1998. Auto-related production especially has been given a boost by the Mercedes-Benz plant in nearby Alabama. Even though these industries as a whole are much smaller than the furniture industry, the upturn in furniture and other durables is expected to yield faster-than-regional growth in durables-manufacturing jobs next year. Still, that expansion will be considerably slower than in the early 1990s.

SERVICES AS A PERCENTAGE OF TOTAL NONFARM EMPLOYMENT



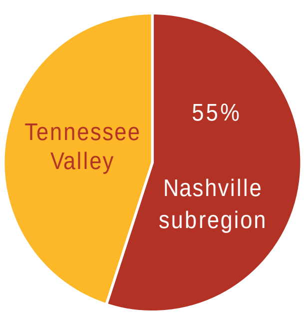
Services employment is expected to grow by more than 10 percent during this decade.

The Nashville Subregion

The Nashville subregion, including south central Kentucky, is the Valley's largest in employment, income, and population and has seen the most rapid growth in those areas during the 1990s. In 1998 it will continue to be the fastest-growing of the subregions but, like the rest of the Valley, should expand at a considerably more moderate pace than in the early '90s.

Although Nashville's economy is well diversified, much of the subregional growth is the result of rapid expansion in the area's motor-vehicles and parts-manufacturing industry. All three of the Valley's automobile assembly plants (Nissan, Saturn, and Corvette) are here. The subregion's prime location also supports a vehicle-parts-and-accessories industry that serves manufacturers both in and outside the Valley and that employs more people than all of the better-publicized assembly facilities combined. As shown in the chart above, the Nashville motor-vehicle and parts industry makes up over half of this industry in the Valley.

MOTOR-VEHICLES EMPLOYMENT

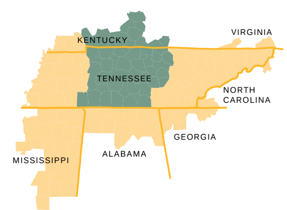


Nashville dominates the auto-related industry.

Although the assembly plants contributed greatly to the subregion's economic growth through 1994, they are not expected to produce any further marked expansion (*see regional forecast, page 52*). Growth in the auto-parts industry, however, should match the healthy regional performance in 1998, buoyed by improved sales of automobiles and the subregion's favorable location. As with the auto-related industry, slightly faster-than-regional job growth in overall durables manufacturing is expected for the subregion next year. Losses in apparel, on the other hand, will lead to moderately slower-than-regional growth in total manufacturing.

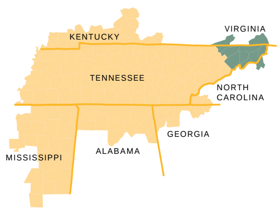
Strong economic expansion has produced strong population growth. The subregion is expected to remain substantially above average in this respect, although, again, the influx will be less rapid than in the early '90s. The vigorous population growth will support construction. As in the rest of the region, though, the construction industry, which expanded swiftly in spite of the 1995-96 slowdown, has now decelerated because of built-up inventories. It should continue to expand at this slower pace in 1998.

Nashville's service sector has also grown rapidly; medical, financial, and consumer services have added jobs faster in the subregion than in the Valley. The consumer-services sector in particular has benefited from high population growth and expansion in tourism and entertainment. Although the current legal problems of Columbia/HCA (the largest Edge 100 company) will slow the rate of growth in Nashville's health industry, the sector is not reliant on this one firm. It also includes Quorum Health Group, PhyCor, Coventry, and other large and small health-care companies based in the subregion. Overall, services are expected to continue growing strongly next year, although more slowly than in the early 1990s.



Nashville's music industry includes many spinoff-product manufacturers like Better Quality Cassettes. When that company decided to double its cassette production and add CD manufacturing-capability last year, it got help from TVA and the Nashville Electric Service in the form of a $700,000 loan. The $9 million expansion will create about 400 new jobs.

The Tri-Cities Subregion



The Bundy Corporation, which makes fluid-carrying systems for vehicles, recently opened a plant in Greeneville, Tennessee. The company leased a 116,000-square-foot building that had been constructed with the aid of an $850,000 TVA loan. Bundy expects to employ 300 workers within five years.

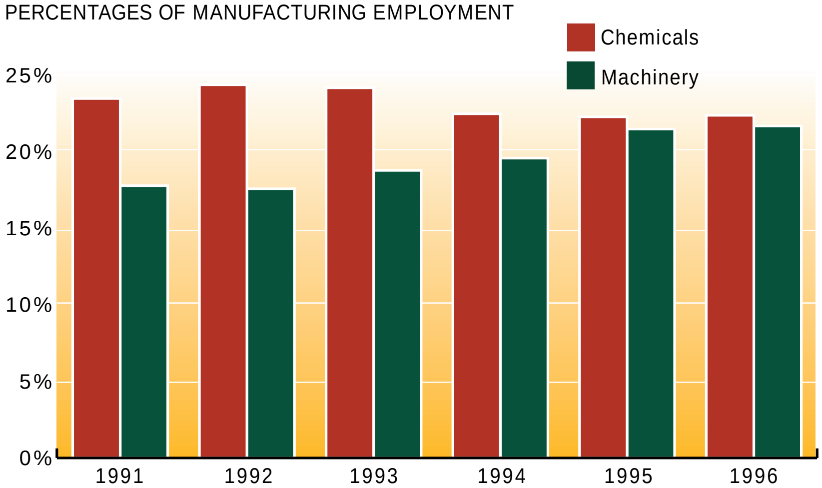
The Tri-Cities subregion is relatively small and rural, with a larger-than-average manufacturing sector that is fairly evenly split between nondurables and durables. Each is dominated by one industry—chemicals and machinery, respectively—that accounts for about half of the employment in that category (*see chart, below*). A reversal of recent trends is expected in 1998, when expansion will occur in both durables and nondurables. Services should also continue to add jobs steadily. The area has attracted several telemarketing firms and is proceeding with the development of a "med-tech" corridor. This expansion in services, however, will be moderated by lower-than-average population growth. As a whole, the subregional economy is expected to perform well in 1998, although it will hover somewhat below the regional average.

The Tri-Cities' chemicals and machinery industries themselves tend to be concentrated in a few large establishments. Eastman Chemical, for example, provides the bulk of chemicals employment. The machinery industry, though not similarly dominated by one firm, has large plants that account for a sizable portion of the sector, such as the former N.A. Philips electronics-manufacturing facility. The subregion also contains a smaller but notable cluster of defense-related manufacturing.

Nondurables are expected to fare somewhat better than the regional average in 1998. The chemicals industry is undergoing considerable restructuring, and increases in the prices of raw materials and oil early this year cut into profitability. The situation has improved since then, and prospects for 1998 appear better. The increased demand for PET container plastic will benefit Eastman. The company has also announced that two new product lines will be manufactured in the area in late 1997 and mid-1998. Textiles should grow next year as a result of facilities consolidation and strengthened demand, especially for exports, while continuing losses in apparel are expected to be relatively slight.

Durables manufacturing looks set to increase in 1998, although at a slower rate than for the Valley overall. N.A. Philips, after coming close to shutting down its facility, sold it to GC Capital, which is expected to retain most but not all of the former workforce to produce televisions and new high-tech telephones. Some defense-related cutbacks are still taking place as well. However, expansions in the subregion's machinery industry continue to occur. Exide Corporation is still enlarging its automotive-battery and electrical-products plants in the area, and Alpine Industries has announced a major relocation and expansion of its air-purification-systems plant in Greene County.

PERCENTAGES OF MANUFACTURING EMPLOYMENT

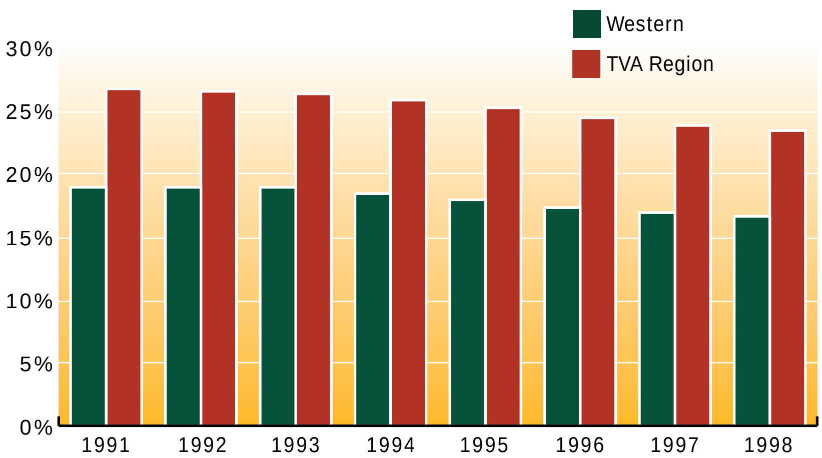


Nearly half the area's manufacturing jobs are in chemicals or machinery.

The Western Subregion

Although the Western subregion (which includes western Kentucky) has generally demonstrated the same pattern of growth as the entire Valley in the 1990s, it has differed from the rest of the region in that its growth neither accelerated as rapidly in the early ’90s nor decelerated as rapidly during the subsequent slowdown. This is due to its much lower reliance on manufacturing. As is seen in the chart at right, the subregion’s manufacturing sector also resembles the Valley’s in performance but constitutes a far smaller proportion of the overall economy.

MANUFACTURING AS A PERCENTAGE OF TOTAL NONFARM EMPLOYMENT



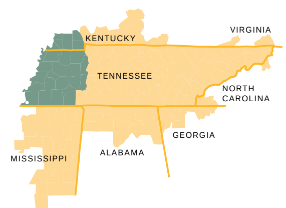
The subregion has a smaller manufacturing sector than the rest of the Valley.

The subregion incorporates two distinct areas. The much larger Memphis area is a commercial center, whereas the rest of the subregion is more like the Valley as a whole in its orientation toward manufacturing. Next year, as manufacturing improves, the non-Memphis part of the subregion is expected to achieve growth comparable to the entire region’s. Memphis should continue to expand, following current trends. Overall, the subregion is expected to grow at about the regional average in 1998.

Memphis continues to solidify its position as a major distribution center. Besides the presence of Federal Express (No. 2 on the Edge 100 list) and rival UPS, Memphis has one of the nation’s largest inland water ports and is developing other warehousing and distribution businesses. During the 1995 slowdown, it was primarily the service industries (most of which are located in Memphis) that sustained subregional growth. As distribution and business services felt the effect of lowered national and regional demand, however, they experienced significant slowdowns. Business services in particular saw their double-digit rates of job growth halved in 1995 and then further reduced in 1996. These rates are expected to improve this year and next.

In contrast, the remainder of the subregion, and especially Jackson, Tennessee, gained manufacturing jobs during the early 1990s, aided by strong expansions in machinery and metals. Indeed, the subregion’s durable-goods sector increased its share of manufacturing jobs from 45 percent in 1989 to the current 50 percent.

By 1994 nondurables manufacturing was already losing jobs, both in quickly declining apparel and in the paper, printing, and publishing industry. The condition of both industries is expected to improve, however, and nondurables employment should stabilize in the subregion next year, following the regional trend. On the other hand, durable goods did not decline, primarily because of continued slower-but-positive growth in machinery and metals. In 1998 durables manufacturing should continue to grow.



Mid-South Metal Products is a company in Collierville, Tennessee, that does fabricating, powder-coating, and packaging of various steel products. To increase its manufacturing and distribution capacities, the company has completed an expansion that will add up to 45 new jobs. TVA Economic Development will provide financial assistance in the form of a $125,000 loan.